RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	09/731,632
Source:	1FW16
Date Processed by STIC:	2/16/05

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IFW16

RAW SEQUENCE LISTING DATE: 02/16/2005
PATENT APPLICATION: US/09/731,632 TIME: 15:23:47

Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\I731632.raw

SEQUENCE LISTING

```
(1) GENERAL INFORMATION:
             (i) APPLICANT: Kennedy, Brian P.
      6
                             Cromlish, Wanda A.
      7
                             Mancini, Joseph A.
      8
                             O'Neil, Gary
                             Vickers, Philip J.
      9
     10
                             Wong, Elizabeth
            (ii) TITLE OF INVENTION: HUMAN CYCLOOXYGENASE-2 cDNA AND
     12
                                      ASSAY FOR EVALUATING CYCLOOXYGENASE ACTIVITY
     13
           (iii) NUMBER OF SEQUENCES: 14
     15
            (iv) CORRESPONDENCE ADDRESS:
     17
     18
                   (A) ADDRESSEE: Merck & Co., Inc.
                   (B) STREET: 126 Lincoln Avenue
     19
     20
                   (C) CITY: Rahway
                   (D) STATE: NJ
     21
     22
                   (E) COUNTRY: USA
                   (F) ZIP: 07065
     23
     25
             (v) COMPUTER READABLE FORM:
                   (A) MEDIUM TYPE: Diskette, 3.5 in, 1.4kb
     26
     27
                   (B) COMPUTER: Apple Macintosh
                   (C) OPERATING SYSTEM: System 7
     28
     29
                   (D) SOFTWARE: Microsoft Word 5
     31
            (vi) CURRENT APPLICATION DATA:
C--> 32
                   (A) APPLICATION NUMBER: US/09/731,632
C--> 33
                   (B) FILING DATE: 20-Nov-2000
                   (C) CLASSIFICATION: 435
     34
     36
           (vii) PRIOR APPLICATION DATA:
     37
                   (A) APPLICATION NUMBER: US/08/064,271
     38
                   (B) FILING DATE: 06-MAY-1993
     40
          (viii) ATTORNEY/AGENT INFORMATION:
     41
                   (A) NAME: Panzer, Curtis C.
     42
                   (B) REGISTRATION NUMBER: 33,752
     43
                   (C) REFERENCE/DOCKET NUMBER: 18906IA
     45
            (ix) TELECOMMUNICATION INFORMATION:
     46
                   (A) TELEPHONE: (908)594-3199
     47
                   (B) TELEFAX: (908)594-4720
     50 (2) INFORMATION FOR SEO ID NO: 1:
             (i) SEQUENCE CHARACTERISTICS:
     52
                   (A) LENGTH: 24 bases
     53
                   (B) TYPE: nucleic acid
     54
     55
                   (C) STRANDEDNESS: single
     56
                   (D) TOPOLOGY: linear
```

Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\I731632.raw

```
58
       (ii) MOLECULE TYPE: DNA (genomic)
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
62
                                                                             24
64 TGCCCAGCTC CTGGCCCGCC GCTT
66 (2) INFORMATION FOR SEO ID NO: 2:
        (i) SEQUENCE CHARACTERISTICS:
69
             (A) LENGTH: 24 bases
70
             (B) TYPE: nucleic acid
71
             (C) STRANDEDNESS: single
72
             (D) TOPOLOGY: linear
74
       (ii) MOLECULE TYPE: DNA (genomic)
78
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
80 GTGCATCAAC ACAGGCGCCT CTTC
                                                                             24
82 (2) INFORMATION FOR SEQ ID NO: 3:
        (i) SEQUENCE CHARACTERISTICS:
             (A) LENGTH: 27 bases
85
             (B) TYPE: nucleic acid
86
             (C) STRANDEDNESS: single
87
88
             (D) TOPOLOGY: linear
       (ii) MOLECULE TYPE: DNA (genomic)
90
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
                                                                             27
96 TTCAAATGAG ATTGTGGGAA AATTGCT
98 (2) INFORMATION FOR SEQ ID NO: 4:
100
         (i) SEQUENCE CHARACTERISTICS:
101
              (A) LENGTH: 24 bases
              (B) TYPE: nucleic acid
102
103
              (C) STRANDEDNESS: single
104
               (D) TOPOLOGY: linear
106
        (ii) MOLECULE TYPE: DNA (genomic)
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
110
112 AGATCATCTC TGCCTGAGTA TCTT
                                                                              24
114 (2) INFORMATION FOR SEQ ID NO: 5:
         (i) SEQUENCE CHARACTERISTICS:
116
117
              (A) LENGTH: 24 bases
               (B) TYPE: nucleic acid
118
               (C) STRANDEDNESS: single
119
120
               (D) TOPOLOGY: linear
122
        (ii) MOLECULE TYPE: DNA (genomic)
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
126
128 CCACCCATGG CAAATTCCAT GGCA
                                                                              24
130 (2) INFORMATION FOR SEQ ID NO: 6:
132
         (i) SEQUENCE CHARACTERISTICS:
133
               (A) LENGTH: 24 bases
               (B) TYPE: nucleic acid
134
135
               (C) STRANDEDNESS: single
136
               (D) TOPOLOGY: linear
138
        (ii) MOLECULE TYPE: DNA (genomic)
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
142
                                                                              24
144 TCTAGACGGC AGGTCAGGTC CACC
146 (2) INFORMATION FOR SEQ ID NO: 7:
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Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\1731632.raw

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148
         (i) SEQUENCE CHARACTERISTICS:
149
              (A) LENGTH: 12 amino acids
              (B) TYPE: amino acid
150
151
               (C) STRANDEDNESS: single
152
              (D) TOPOLOGY: linear
        (ii) MOLECULE TYPE: protein
154
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
158
         Asp Asp Ile Asn Pro Thr Val Leu Leu Lys Glu Arg
160
161
                                               10
         1
    (2) INFORMATION FOR SEQ ID NO: 8:
162
         (i) SEQUENCE CHARACTERISTICS:
164
               (A) LENGTH: 23 bases
165
               (B) TYPE: nucleic acid
166
               (C) STRANDEDNESS: single
167
               (D) TOPOLOGY: linear
168
        (ii) MOLECULE TYPE: DNA (genomic)
170
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
174
                                                                              23
    CTGCGATGCT CGCCCGCGCC CTG
176
    (2) INFORMATION FOR SEQ ID NO: 9:
178
         (i) SEQUENCE CHARACTERISTICS:
180
181
               (A) LENGTH: 24 bases
               (B) TYPE: nucleic acid
182
183
               (C) STRANDEDNESS: single
               (D) TOPOLOGY: linear
184
186
        (ii) MOLECULE TYPE: DNA (genomic)
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
190
192 CTTCTACAGT TCAGTCGAAC GTTC
                                                                              24
    (2) INFORMATION FOR SEQ ID NO: 10:
196
         (i) SEQUENCE CHARACTERISTICS:
               (A) LENGTH: 604 amino acids
197
               (B) TYPE: amino acid
198
               (C) STRANDEDNESS: single
199
200
               (D) TOPOLOGY: linear
202
        (ii) MOLECULE TYPE: protein
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
206
         Met Leu Ala Arg Ala Leu Leu Cys Ala Val Leu Ala Leu Ser His
208
                          5
209
         Thr Ala Asn Pro Cys Cys Ser His Pro Cys Gln Asn Arg Gly Val Cys
211
212
         Met Ser Val Gly Phe Asp Gln Tyr Lys Cys Asp Cys Thr Arg Thr Gly
214
215
         Phe Tyr Gly Glu Asn Cys Ser Thr Pro Glu Phe Leu Thr Arg Ile Lys
217
218
                                  55
220
         Leu Phe Leu Lys Pro Thr Pro Asn Thr Val His Tyr Ile Leu Thr His
221
                              70
                                                   75
         Phe Lys Gly Phe Trp Asn Val Val Asn Asn Ile Pro Phe Leu Arg Asn
223
224
                                               90
         Ala Ile Met Ser Tyr Val Leu Thr Ser Arg Ser His Leu Ile Asp Ser
226
                      100
                                           105
                                                                110
227
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Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\I731632.raw

229 230	Pro	Pro	Thr 115	Tyr	Asn	Ala	Asp	Tyr 120	Gly	Tyr	Lys	Ser	Trp 125	Glu	Ala	Phe
232	Ser	Asn		Ser	Tvr	Tvr	Thr		Ala	Len	Pro	Pro		Pro	Asp	asp
233	UC.	130	шси	001	- 7 -	- 7 -	135			200		140				
235	Cve		Thr	Pro	T.eu	Glv		Lvc	Glv	Lvs	Lvs		Len	Pro	Asp	Ser
236	145	110	1111	110	шси	150	vui	Lys	01,	_,	155	01	<u> </u>		11.55	160
238		Glu	Tle	Val	Glu		T.e.ii	I.e.i	T.eu	Δra		Lvs	Phe	Ile	Pro	
239	ASII	Olu	110	Val	165	цуз	БСС	БСС	Dea	170	9	Lys	1110	***	175	11.05
241	Pro	Gln	Glv	Ser		Met	Met	Phe	Δla		Phe	Δla	Gln	His		Thr
242	110	0111	OLY	180	71011	1100		1 110	185	1110			0111	190		
244	His	Gln	Phe		Lvs	Thr	Asn	His		Ara	Glv	Pro	Δla	Phe	Thr	Asn
245	1110	01	195	1110	_,		тор	200	_, .	3	U -1	110	205			
247	G] v	T.e11		His	Glv	Val	Asp		Asn	His	Tle	Tvr		Glu	Thr	Leu
248	017	210	017		0-1		215					220	0-7			
250	Ala		Gln	Ara	Lvs	Leu		Leu	Phe	Lvs	Asp		Lvs	Met	Lvs	Tvr
251	225	9	01	5	-1-	230	5			-7-	235	1	-1-		-1-	240
253		Ile	Ile	Asp	Glv		Met	Tvr	Pro	Pro		Val	Lys	Asp	Thr	
254					245			-		250			•	•	255	
256	Ala	Glu	Met	Ile		Pro	Pro	Gln	Val	Pro	Glu	His	Leu	Arg		Ala
257				260	•				265					270		
259	Val	Gly	Gln	Glu	Val	Phe	Gly	Leu	Val	Pro	Gly	Leu	Met	Met	Tyr	Ala
260		-	275				-	280			_		285		_	
262	Thr	Ile	Trp	Leu	Arg	Glu	His	Asn	Arg	Val	Cys	Asp	Val	Leu	Lys	Gln
263		290	_		_		295					300				
265	Glu	His	Pro	Glu	Trp	Gly	Asp	Glu	Gln	Leu	Phe	Gln	Thr	Ser	Arg	Leu
266	305					310					315					320
268	Ile	Leu	Ile	Gly	Glu	Thr	Ile	Lys	Ile	Val	Ile	Glu	Asp	Tyr	Val	Gln
269					325					330					335	
271	His	Leu	Ser	Gly	Tyr	His	Phe	Lys	Leu	Lys	Phe	Asp	Pro	Glu	Leu	Leu
272				340					345					350		
274	Phe	Asn	Lys	Gln	Phe	Gln	Tyr	Gln	Asn	Arg	Ile	Ala	Ala	Glu	Phe	Asn
275			355					360					365			
277	Thr	Leu	Tyr	His	Trp	His	Pro	Leu	Leu	Pro	Asp		Phe	Gln	Ile	His
278		370					375					380				
280	Asp	Gln	Lys	Tyr	Asn	_	Gln	Gln	Phe	Ile		Asn	Asn	Ser	Ile	
281	385					390					395					400
283	Leu	Glu	His	Gly		Thr	Gln	Phe	Val		Ser	Phe	Thr	Arg		Ile
284					405	_	_			410					415	_
286	Ala	Gly	Arg	Val	Ala	Gly	Gly	Arg		Val	Pro	Pro	Ala	Val	Gln	Lys
287	_			420	_		_		425	_			_	430	~ 7	_
289	Val	Ser		Ala	Ser	He	Asp		Ser	Arg	GIn	Met		Tyr	Gin	Ser
290			435	_	_	_	_	440		_	_	_	445	~ 3		
292	Phe		Glu	Tyr	Arg	Lys		Phe	Met	Leu	Lys		Tyr	Glu	Ser	Pne
293	~-7	450	_		~7	~1	455	~ 1		a .		460	.	a 1	7.7 -	T
295		GIu	Leu	Thr	GLY		Lys	Glu	Met	Ser		Glu	Leu	Glu	ата	
296	465	~ 3		-	3	470	**- 7	G 3.	T		475	7.7 -	+	T	17- T	480
298	Tyr	GLY	Asp	тте		ΑΙа	vaı	GIU	ьеи		Pro	АТА	ьeu	Leu		GIU
299	_	_	_	5 .	485			5 1	a 3	490	CT1		77. T	01	495	a 1
301	ьуs	Pro	Arg	Pro	Asp	Ala	тте	Pne	GIY	Glu	Inr	met	vaı	Glu	vaı	GTA

Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\I731632.raw

```
302
                     500
                                         505
                                                             510
        Ala Pro Phe Ser Leu Lys Gly Leu Met Gly Asn Val Ile Cys Ser Pro
304
305
                                     520
                                                         525
        Ala Tyr Trp Lys Pro Ser Thr Phe Gly Gly Glu Val Gly Phe Gln Ile
307
308
             530
                                 535
        Ile Asn Thr Ala Ser Ile Gln Ser Leu Ile Cys Asn Asn Val Lys Gly
310
                             550
                                                 555
311
313
        Cys Pro Phe Thr Ser Phe Ser Val Pro Asp Pro Glu Leu Ile Lys Thr
                         565
                                             570
314
        Val Thr Ile Asn Ala Ser Ser Ser Arg Ser Gly Leu Asp Asp Ile Asn
316
                     580
                                                             590
317
319
        Pro Thr Val Leu Leu Lys Glu Arg Ser Thr Glu Leu
                 595
                                     600
320
    (2) INFORMATION FOR SEQ ID NO: 11:
         (i) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 3387 bases
325
              (B) TYPE: nucleic acid
326
327
              (C) STRANDEDNESS: single
328
              (D) TOPOLOGY: linear
330
        (ii) MOLECULE TYPE: DNA (genomic)
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
334
                                                                           60
336 GTCCAGGAAC TCCTCAGCAG CGCCTCCTTC AGCTCCACAG CCAGACGCCC TCAGACAGCA
338 AAGCCTACCC CCGCGCCGCG CCCTGCCCGC CGCTGCGATG CTCGCCCGCG CCCTGCTGCT
                                                                          120
340 GTGCGCGGTC CTGGCGCTCA GCCATACAGC AAATCCTTGC TGTTCCCACC CATGTCAAAA
                                                                          180
342 CCGAGGTGTA TGTATGAGTG TGGGATTTGA CCAGTATAAG TGCGATTGTA CCCGGACAGG
                                                                          240
344 ATTCTATGGA GAAAACTGCT CAACACCGGA ATTTTTGACA AGAATAAAAT TATTTCTGAA
                                                                          300
346 ACCCACTCCA AACACAGTGC ACTACATACT TACCCACTTC AAGGGATTTT GGAACGTTGT
                                                                          360
348 GAATAACATT CCCTTCCTTC GAAATGCAAT TATGAGTTAT GTGTTGACAT CCAGATCACA
                                                                          420
350 TTTGATTGAC AGTCCACCAA CTTACAATGC TGACTATGGC TACAAAAGCT GGGAAGCCTT
                                                                          480
352 CTCTAACCTC TCCTATTATA CTAGAGCCCT TCCTCCTGTG CCTGATGATT GCCCGACTCC
                                                                          540
354 CTTGGGTGTC AAAGGTAAAA AGCAGCTTCC TGATTCAAAT GAGATTGTGG AAAAATTGCT
                                                                          600
356 TCTAAGAAGA AAGTTCATCC CTGATCCCCA GGGCTCAAAC ATGATGTTTG CATTCTTTGC
                                                                          660
358 CCAGCACTTC ACGCACCAGT TTTTCAAGAC AGATCATAAG CGAGGGCCAG CTTTCACCAA
                                                                          720
360 CGGGCTGGGC CATGGGGTGG ACTTAAATCA TATTTACGGT GAAACTCTGG CTAGACAGCG
                                                                          780
362 TAAACTGCGC CTTTTCAAGG ATGGAAAAAT GAAATATCAG ATAATTGATG GAGAGATGTA
                                                                          840
364 TCCTCCCACA GTCAAAGATA CTCAGGCAGA GATGATCTAC CCTCCTCAAG TCCCTGAGCA
                                                                          900
366 TCTACGGTTT GCTGTGGGGC AGGAGGTCTT TGGTCTGGTG CCTGGTCTGA TGATGTATGC
                                                                          960
1020
370 ATGGGGTGAT GAGCAGTTGT TCCAGACAAG CAGGCTAATA CTGATAGGAG AGACTATTAA
                                                                         1080
372 GATTGTGATT GAAGATTATG TGCAACACTT GAGTGGCTAT CACTTCAAAC TGAAATTTGA
                                                                         1140
374 CCCAGAACTA CTTTTCAACA AACAATTCCA GTACCAAAAT CGTATTGCTG CTGAATTTAA
                                                                         1200
376 CACCCTCTAT CACTGGCATC CCCTTCTGCC TGACACCTTT CAAATTCATG ACCAGAAATA
                                                                         1260
378 CAACTATCAA CAGTTTATCT ACAACACTC TATATTGCTG GAACATGGAA TTACCCAGTT
                                                                         1320
380 TGTTGAATCA TTCACCAGGC AAATTGCTGG CAGGGTTGCT GGTGGTAGGA ATGTTCCACC
                                                                         1380
382 CGCAGTACAG AAAGTATCAC AGGCTTCCAT TGACCAGAGC AGGCAGATGA AATACCAGTC
                                                                         1440
384 TTTTAATGAG TACCGCAAAC GCTTTATGCT GAAGCCCTAT GAATCATTTG AAGAACTTAC
                                                                         1500
386 AGGAGAAAAG GAAATGTCTG CAGAGTTGGA AGCACTCTAT GGTGACATCG ATGCTGTGGA
                                                                         1560
388 GCTGTATCCT GCCCTTCTGG TAGAAAAGCC TCGGCCAGAT GCCATCTTTG GTGAAACCAT
                                                                         1620
390 GGTAGAAGTT GGAGCACCAT TCTCCTTGAA AGGACTTATG GGTAATGTTA TATGTTCTCC
                                                                         1680
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Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\I731632.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 66 Seq#:2; Line(s) 82 Seq#:3; Line(s) 98 Seq#:4; Line(s) 114 Seq#:5; Line(s) 130 Seq#:6; Line(s) 146 Seq#:7; Line(s) 162 Seq#:8; Line(s) 178 Seq#:9; Line(s) 194 Seq#:10; Line(s) 322 Seq#:11; Line(s) 451 Seq#:12; Line(s) 467 Seq#:13; Line(s) 483 **VERIFICATION SUMMARY** DATE: 02/16/2005

PATENT APPLICATION: US/09/731,632 TIME: 15:23:48

Input Set : N:\Crf3\RULE60\09731632.raw
Output Set: N:\CRF4\02162005\I731632.raw

L:32 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:33 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]